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# S-430i<sup>TM</sup>

## Basic Description

FANUC Robotics' S-430i line of robots is designed for maximum flexibility, performance and reliability in automotive, material handling and general industries applications and is supported by our extensive service and parts network. The S-430i's compact design features a large work envelope (including flip over) and capacity for high speeds and heavy payloads.

## S-430i, the Solution for:

- Automotive spot welding and general assembly
- General industrial applications
- Part transfer
- Material removal
- Dispensing
- Machine loading

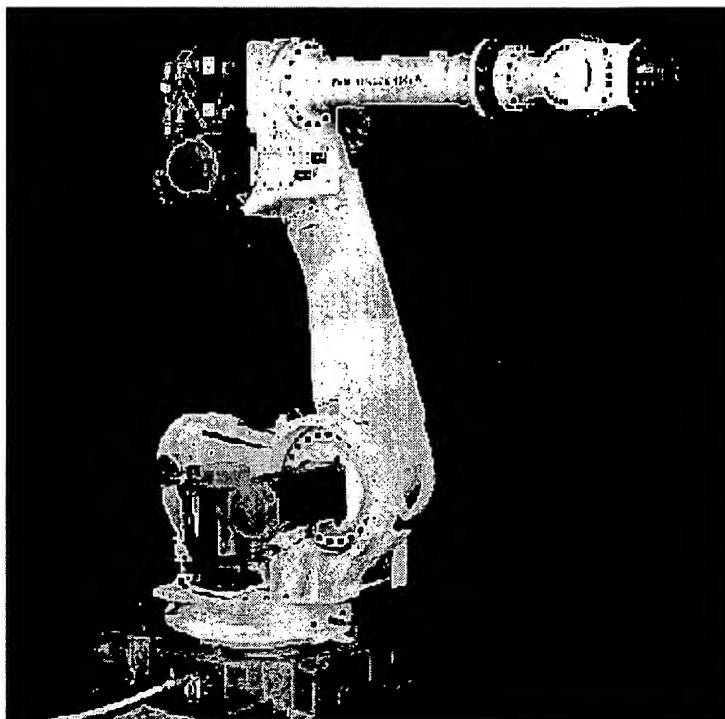
## Benefits

- Large work envelope with ability to reach overhead and behind
- Slim arm and wrist assembly
- Compatible with S-420i robot applications (wrist flange and envelope)
- Proven FANUC servo drive system with fast point-to-point positioning

## Features

### Flexibility:

- Multiple controller type and locations
- Variety of models (S-430i family)



- Shared features from S-420 and S-420i series such as identical tooling faceplates
- Can reach all areas of S-420 and S-420i work envelope making replacement easy

### Mechanical:

- 6 axes of motion
- Slim profile design
- Large allowable wrist moments and inertias
- Many process attachment points
- Stationary outer arm
- Precision gear drives for axes J5 and J6
- Elimination of counterweight increases available workspace
- Process/application cables routed through the arm
- No motors at wrist

### Control:

- i-size (integrated or remote) cabinet

- Quick change amplifier (<5 min)
- Fast boot-up time (<30 sec)
- Easy connections to a variety of I/O

### Software:

- Same look and feel as S-420i series robots
- Specific tool packages for various applications

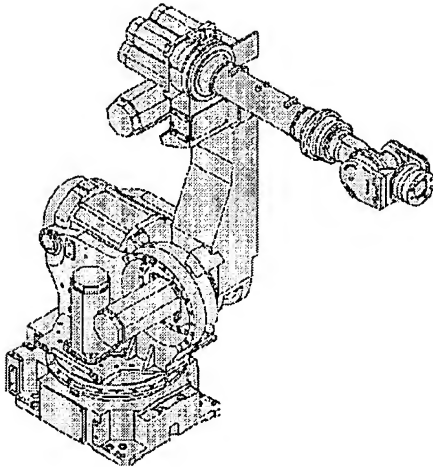
### Options

- Dual internal air lines
- Three faceplate types
- Electrically insulated faceplate
- Internal I/O cables
- Harsh environment protection
- Adjustable hard stops for J1-J3
- Precision baseplate for mounting
- B-size controller cabinet

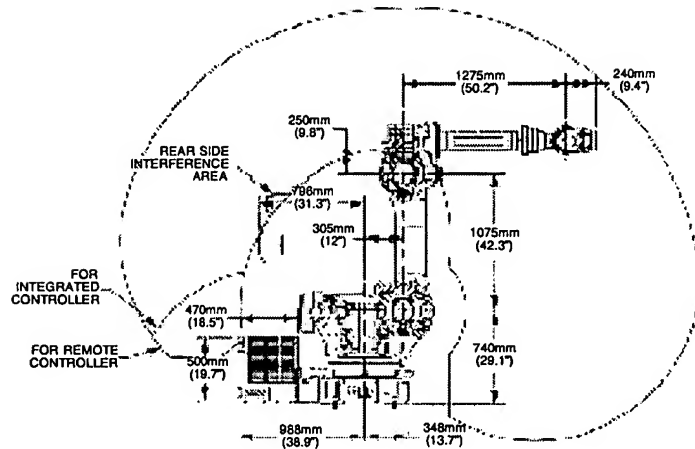
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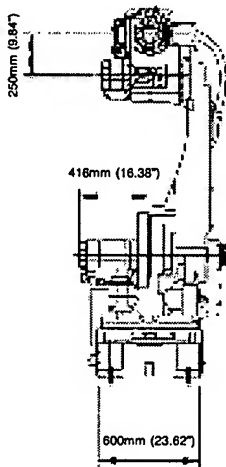
Isometric



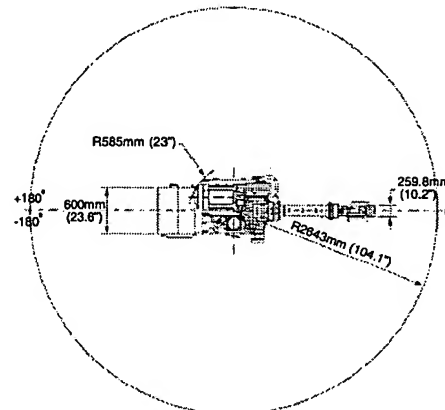
S-430iF, iW Side



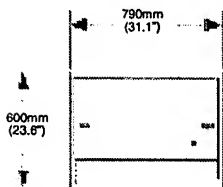
S-430iF, iW, iL Front



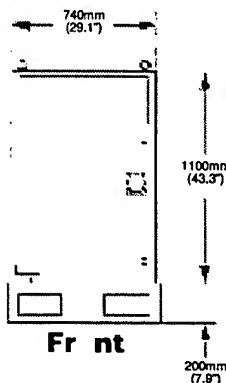
S-430iF, iW Top



B-size Controller Option



Top

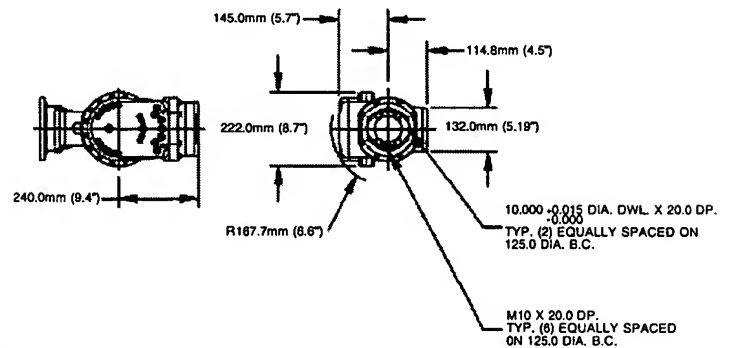


Front



Side

S-430iF, iW, iL, iR Wrist ISO Flange

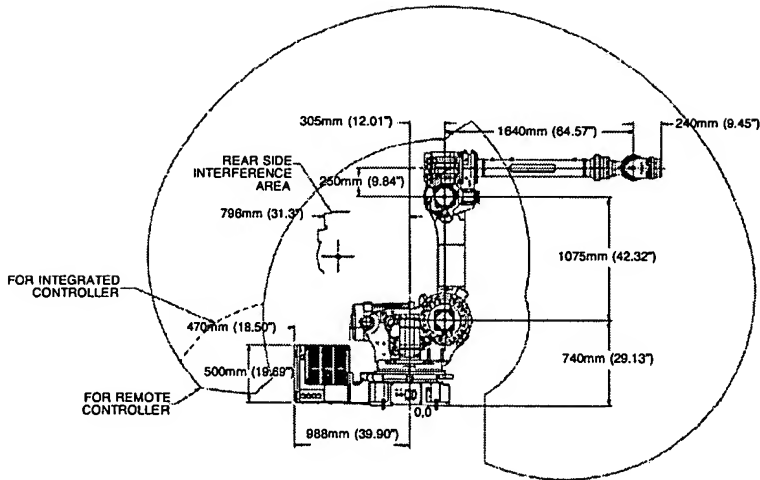


S-430i Product Line  
Family of S-430i Robots

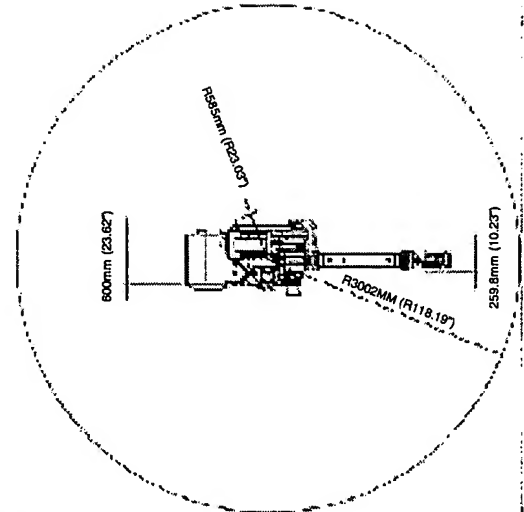
Model	Payload	Purpose
S-430iF	130kg	Floor mount
S-430iW	165kg	Heavy duty floor mount
S-430iW	200kg	Extra Heavy duty floor mount
S-430iL	80kg	Long arm floor mount
S-430iL	125kg	Heavy duty long arm floor mount
S-430iR	130kg	Rack mount
S-430iR	165kg	Heavy duty rack mount
S-430iU	130kg	Invert mount

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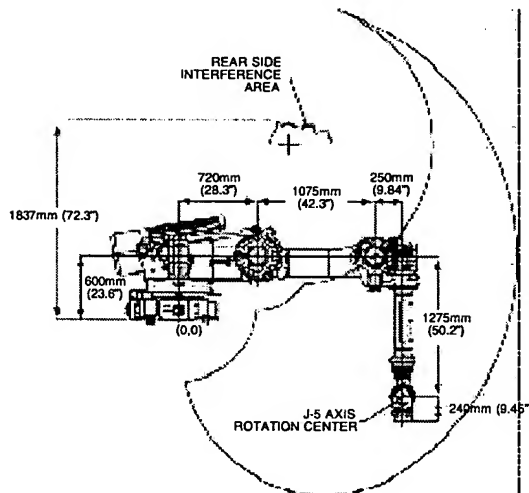
**S-430iL Side**



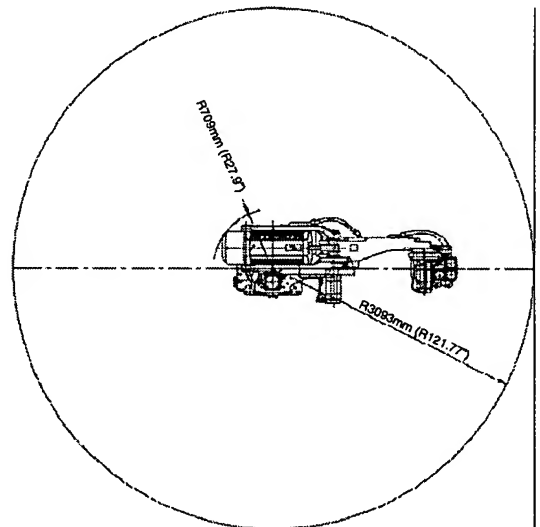
**S-430iL Top**



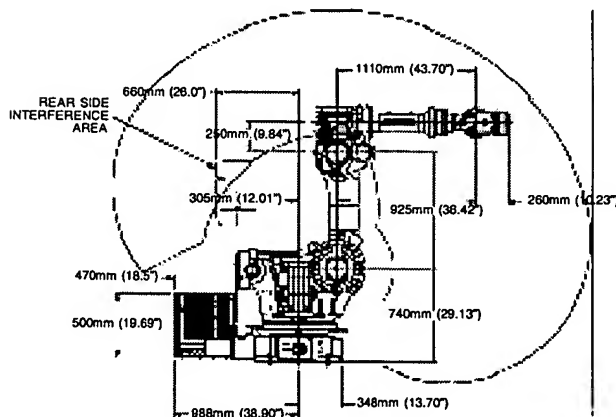
**S-430iR Side**



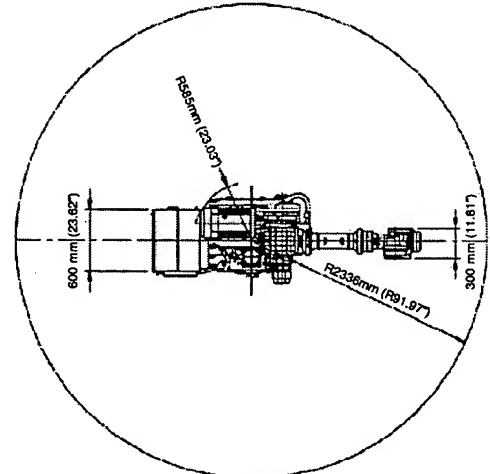
**S-430iR Top**



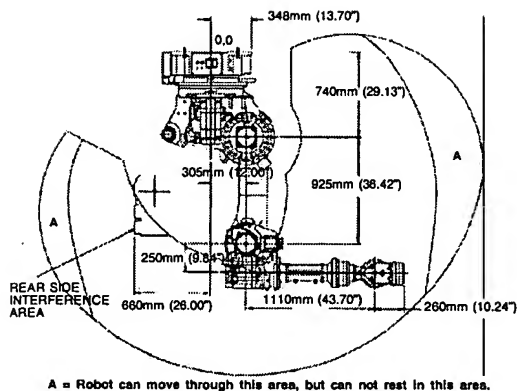
**S-430iW/200kg Side**



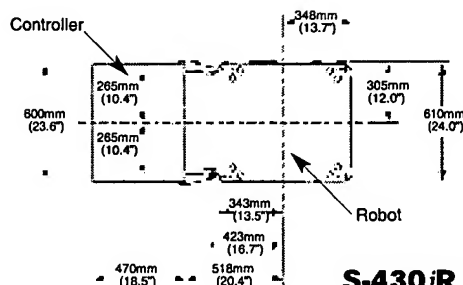
**S-430iW/200kg, iU Top**



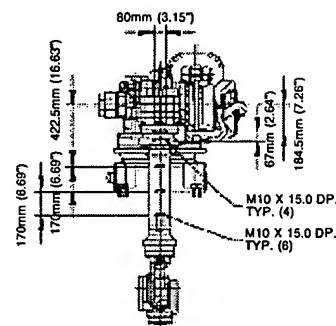
## S-430iU Side



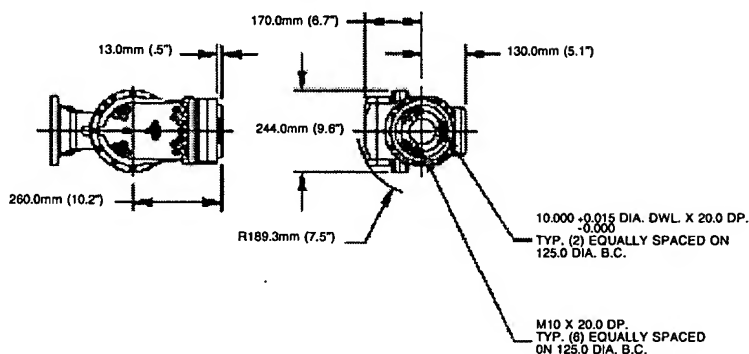
## S-430i Front print



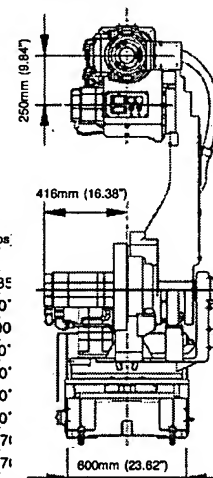
## S-430iR Front



## S-430iW/200kg, iU Wrist ISO Flange



## S-430iW/200kg, iU Front



## S-430i Specifications

Specifications	S-430iF	S-430iW	S-430iW	S-430iL	S-430iL	S-430iR	S-430iR	S-430iU
Payload	130kg (286 lbs)	165kg (363 lbs)	200kg (441 lbs)	80kg (178 lbs)	125kg (275 lbs)	130kg (286 lbs)	165kg (364 lbs)	130kg (286 lbs)
Reach	2643mm (104")	2643mm (104")	2336mm (92")	3002mm (118")	3002mm (118")	3093mm (122")	3093mm (122")	2336mm (92")
Interference radius	R585mm	R585mm	R585mm	R585mm	R585mm	R708mm	R708mm	R585mm
Motion speed	J1 axis 110°/sec	105°/sec	90°/sec	130°/sec	105°/sec	110°/sec	105°/sec	90°
	J2 axis 110°/sec	105°/sec	90°/sec	130°/sec	105°/sec	90°/sec	90°/sec	90°
	J3 axis 100°/sec	105°/sec	90°/sec	130°/sec	105°/sec	100°/sec	105°/sec	c 90°
	J4 axis 210°/sec	130°/sec	110°/sec	200°/sec	170°/sec	210°/sec	130°/sec	110°
	J5 axis 150°/sec	130°/sec	110°/sec	170°/sec	170°/sec	150°/sec	130°/sec	110°
	J6 axis 210°/sec	210°/sec	150°/sec	310°/sec	260°/sec	210°/sec	210°/sec	150°
Allowable wrist load moment	J4 axis 70kgfm	93kgfm	130kgfm	60kgfm	60kgfm	70kgfm	93kgfm	70kgfm
	J5 axis 70kgfm	93kgfm	130kgfm	60kgfm	60kgfm	70kgfm	93kgfm	70kgfm
	J6 axis 35kgfm	46kgfm	70kgfm	35kgfm	35kgfm	35kgfm	46kgfm	35kgfm
Allowable wrist load inertia	J4 axis 417kgcm²	900kgcm²	1200kgcm²	600kgcm²	600kgcm²	417kgcm²	900kgcm²	417kgcm²
	J5 axis 417kgcm²	900kgcm²	1200kgcm²	600kgcm²	600kgcm²	417kgcm²	900kgcm²	417kgcm²
	J6 axis 104kgcm²	450kgcm²	600kgcm²	200kgcm²	230kgcm²	104kgcm²	450kgcm²	104kgcm²
Repeatability	±0.3mm	±0.3mm	±0.3mm	±0.3mm	±0.3mm	±0.3mm	±0.3mm	±0.3mm
Mounting method	Upright	Upright	Upright	Upright	Upright	Upright	Upright	Upright
Mechanical brakes	All axes	All axes	All axes	All axes	All axes	All axes	All axes	All axes
Weight	1300kg	1300kg	1300kg	1300kg	1300kg	1600kg	1600kg	1300kg



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